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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,403	02/15/2001	Fred Bunn	1875.0460001/RES/TCF	4798

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EXAMINER

SEFCHECK, GREGORY B

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/783,403	BUNN ET AL.	
	Examiner	Art Unit	
	Gregory B. Sefcheck	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8-12,15 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8-12,15 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Applicant's Request for Continued Examination filed 9/1/2005 is acknowledged.
- Claims 1, 3-6, 8-12, 15, and 16 are pending.

Information Disclosure Statement

1. The information disclosure statement filed 9/1/2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

- No copy of Cite No. NPL1 by John Limb and Dolores Sala was received with the submission filed 9/1/2005. The US patent documents listed in the IDS, however, have been considered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-6, 8-10, 12, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman (US006438123B1) in view of Brown et al. (US006732179B1), hereafter Brown.

- In regards to Claims 1, 4-6, 9, 10, 12, and 15,

Chapman discloses a method and system for supporting header suppression when transmitting cable modem data to a network (Title; Abstract; Fig. 1; claim 1,6,12 – cable modem system and method for transferring data from user to network).

Referring to Fig. 1, Chapman discloses a DOCSIS-compliant cable modem termination system 18 coupled to cable modems 19/22 and the Internet 17 (Col. 3, lines 50-57; claim 1,6 – cable modem termination system coupled to cable modem via cable network; claim 4,9 – network is Internet).

Chapman discloses that the cable modem suppresses transmission of Ethernet, UDP, and IP packet headers received from a user and transfers the suppressed packets to the CMTS, where the suppressed headers are restored to the packet data (Col. 2, lines 1-23; claim 1,6,12 – cable modem receives data packets from user, modify the contents in accordance with non-DOCSIS transfer protocol, transfer to termination system; claim 5,10,15 – cable modem modifies contents by suppressing header information).

Chapman discloses the CMTS restores the suppressed headers of the packets before sending the packets to a destination, rather than transferring the modified

packets to a headend server that receives the suppressed packets from the CMTS and restores the packets before transmission to a destination.

Brown discloses a system and method for transmitting cable modem data from a client to the Internet through a private network server system (Fig. 4). Brown discloses the use of servers 410/414/416/418 coupled between CMTS 126 and the Internet 130, thereby controlling access to network services and protecting the client data (Abstract; Col. 2, lines 52-59; Col. 7-10, lines 3-10; claim 1,6,12 – headend server coupled to termination system and network; claim 1,6,12 – termination system adapted to receive modified packets and transfer to headend server in accordance with address information; claim 1,6,12 – headend server adapted to restore contents of packets to unmodified state and transfer to network; claim 5,10,15 – server restores contents by restoring suppressed header information).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and system of Chapman by transferring the header-suppressed packets to a server, as shown by Brown, before restoring the packets and transmitting to a network. This modification would provide security for the client data being transmitted while maintaining the bandwidth efficiency of the suppressed packet headers until transmission to the external network is performed.

- In regards to Claims 3, 8, and 16,

Chapman discloses a method and system for supporting header suppression when transmitting cable modem data to a network that covers all limitations of the parent claims.

Chapman discloses the use of Ethernet addressing for communicating the cable modem data to the CMTS and the network. However, Chapman does not explicitly show appending Ethernet address information to the packets corresponding to the headend server.

Brown discloses a system and method for transmitting cable modem data from a client to the Internet through a private network server system (Fig. 4). Brown discloses that the client communicates with the servers using standard communications protocols (such as Ethernet; Col. 7, lines 12-15; claim 3,8,16 – cable modem appends Ethernet address information to direct modified packets to headend server).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and method of Chapman by using Ethernet addressing for communicating header-suppressed packet data from the cable modem to the CMTS and/or a server, as shown by Brown. This would provide a standard mechanism for transferring header-suppressed data to the CMTS/server before transmitting the data across the network.

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman in view of Fijolek et al. (US006510162B1), hereafter Fijolek.

- In regards to Claim 11,

Chapman discloses system for supporting header suppression when transmitting cable modem data to a network (Title; Abstract; Fig. 1; claim 11 – cable modem system for transferring data from user to network).

Referring to Fig. 1, Chapman discloses a cable modem termination system 18 coupled to cable modems 19/22 and the Internet 17 (claim 11 – cable modem termination system coupled to cable modem via cable network and to the network).

Chapman discloses that the cable modem suppresses transmission of packet headers received from a user and transfers the suppressed packets to the CMTS (Col. 2, lines 1-23; claim 11 – cable modem receives data packets from user, modify the contents in accordance with transfer protocol, transfer to termination system).

Chapman discloses the CMTS restores the suppressed headers of the packets before sending the packets to a destination, rather than transferring the modified packets to a headend server that receives the suppressed packets from the CMTS and restores the packets before transmission to a destination.

Fijolek discloses a system for managing channel usage in a data over cable system (Title). Referring to Fig. 1, Fijolek shows headend server 25 containing content, operations, administrative and maintenance servers coupled to CMTS 12 and network

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28 (Col. 5, lines 52-55; claim 11 – headend server coupled to termination system and network). Referring to Figs. 5 and 6, Fijolek shows that data from cable modem 16 is transferred from CMTS 12 to server 25 to provide network management, class of service and quality of service connection set-up before being transmitted to network 28 by CMTS 12 (Col. 12-13, lines 10-64; claim 11 – termination system adapted to receive modified packets and transfer to headend server; claim 11 – headend server adapted to restore contents of packets to unmodified state and transfer to CMTS; claim 11 – termination system receives and transfers restored packets to network).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Chapman by transferring suppressed header packet data from a CMTS to a headend server before restoring the packets and transmitting over a network, as shown by Fijolek. This modification would improve system performance by providing network management for the cable modems served by the CMTS while maintaining the bandwidth efficiency provided by the suppressed headers.

Response to Arguments

5. Applicant's arguments filed 9/1/2005 have been fully considered but they are not persuasive.

- In the Remarks on pgs. 15-19 of the Amendment, the Applicant contends that neither Brown nor Fijolek overcome the deficiencies of Chapman in rejecting

- the claims. In particular, Applicant contends that neither Brown nor Fijolek disclose a server adapted to handle non-DOCSIS-compliant data transfer in a cable modem system having a DOCSIS-compliant CMTS.
- The Examiner respectfully disagrees. As shown above as well as in the previous Office Action filed 9/21/2005, Chapman discloses a system that performs all of the processing steps shown in claims 1, 6, and 12. However, Chapman shows that the functionality of the claimed headend server for handling of non-DOCSIS-compliant data transfer, including the restoration of suppressed packet headers, is performed directly by the CMTS. The systems of Brown and Fijolek are relied upon to introduce the concept of separating the functionality of the CMTS disclosed by Chapman into separate elements, i.e. CMTS operating in conjunction with a server, to optimize system performance, add enhanced security features, etc. prior to data transmission over a network. The combination of Chapman and Brown and the combination of Chapman and Fijolek suggest that the operation of restoring suppressed packet headers in Chapman could be performed at a headend server cooperating with the CMTS, as shown by Brown and Fijolek, rather than directly at the CMTS, to enable system optimization and enhanced services the improve system performance.
 - See also: Nerwin vs. Erlichman, 168 USPQ 177,179, 1969 and *In Re Duhlberg* 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961) for case law pertaining to making separable of elements shown as integral in the prior art.

Conclusion

6. All claims are drawn to the same invention claimed prior to the request for continued examination and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered prior to the request.

Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

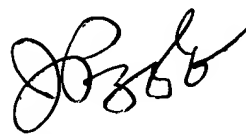
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B. Sefcheck whose telephone number is 571-272-3098. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GBS
12-14-2005



JOHN PEZZLO
PRIMARY EXAMINER